

ZELENIN, N.I.; RUDKOVSKIY, D.M.; CHERNYSHEVA, K.B.; NATAROV, V.F.;
TATARKINA, G.V.

Prospects for the oxosynthesis process based on shale olefins.
Khim. i tekhn. gor. slan. i prod. ikh perer no.13:325-332 '64.
(MIRA 18:9)

NATAROV, V.N.

Water masses and currents of the Bering Sea. Trudy VNIRO 48:111-133 '63.
(MIRA 17:2)

1. Tikhookeanskii nauchno-issledovatel'skiy institut morskogo rybnogo
zhelazstva i okeanografii.

NATAROV, V.V.

Effect of adrenocortical hormones on the thyroid gland
altered by goiter. Vrach. delo no.12:28-31 D '63.

(MIRA 17:2)

1. Kafedra gistologii (zav. - prof. B.V. Aleshin) Khar'kov-
skogo meditsinskogo instituta.

NATAROV, V.V.

Intravital radiation indication of the function of the thyroid gland in rats. Lab. delo no. 11:600-667 (201). (MIRA 17:12)

1. Kafedra gistologii (zaveduyushchiy - prof. B.M. Iosadze)
Khar'kovskogo meditsinskogo instituta.

NATAROV, V.V.

Effect of adrenal cortex hormones on the absorption of I^{131}
by the thyroid gland and on respiration by its parenchyma.
Biul. eksp. biol. i med. 57 no. 2:68-71 F '64. (MIRA 17:9)

1. Kafedra gistologii (zav. - prof. B.V.Aleshin) Khar'kovskogo
meditsinskogo instituta. Predstavlena deystvitel'nyim chlenom
AMN SSSR A.V.Lebedinskim.

NATAROV, V.D.; NATAROV, V.V.

Mine waters in the Krivoy Rog Basin and possibilities of their
utilization for balneological purposes. Geol. zhur. 20 no. 4:79-
83 '60. (MIRA 14:4)

(Krivoy Rog Basin—Mine water)

GURIKOVA, Z.F.; VINOKUROVA, T.T.; NATAROV, V.V.

Diagram of the wind-driven circulation of the Bering Sea currents
in August of 1959 and 1960. Trudy VNIRO 49:51-76 '64.

(MIRA 18:5)

1. Kafedra fiziki morya Dal'nevostochnogo gosudarstvennogo univer-
siteta (for Gurikova). 2. Tikhookeanskiy nauchno-issledovatel'skiy
institut morskogo rybnogo khozyaystva i okeanografii (for Vinokurova,
Natarov).

LEYTES, L.G., kand.tekhn.nauk, nauchnyy sotrudnik; ANTIPOVA, N.P., inzh.,
nauchnyy sotrudnik; NATAROVA, L.G., inzh., nauchnyy sotrudnik

Assortments of woolen fabrics. Tekst.prom.22 no.3:5-7 Mr '62.
(MIRA 15:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut sherstyanoy
promyshlennosti.

(Textile fabrics)

NATAROVSKIY, A.N.

The RBU-50A drilling unit for the mechanization of manual drilling operations. *Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch. 1*
tekh.inform. no.4:9-11 '62. (MIRA 15:7)
(Boring machinery)

NATASON, G. I.

USSR/Mathematics - Approximations

11 Sep 53

"Summation of Series in Jacobi Polynomials by a Method Analogous to the Bernshteyn-Rogozinski Method, G. I. Natason, Leningrad State Pedagog Inst im Herts

DAN SSSR, Vol 92, No 2, pp 229, 230

Notes that in the theory of trigonometric Fourier series the familiar Bernshteyn-Rogozinskiy method of summation consists in considering the limit of the expression $\frac{1}{2} [S_n(x - \frac{\pi}{2n+1}) + S_n(x + \frac{\pi}{2n+1})]$, along with the limit of $S_n(x)$ ($n \rightarrow \infty$), where $S_n(x)$ are

269T78

the partial sums of the Fourier series. Formulates similar limits for Fourier series that are expressed in Jacobi polynomials $J_n(a,b)(x)$ of function $f(x)$. Presented by Acad V. I. Smirnov 4 Jul 53.

NAT: 30N, I

1

Theory Of Functions Of A Real Variable . New York,
Frederick Ungar, 1964-
V. 101a.

Translated From The Original Russian: "Geography
Fundamentally Vestibular" by P. P. Ponomarev, Moscow, 1950.
Bibliographical Footnotes.

NATATSE, G. M.

"Basis of Hygiene" (Osnovy Gigeny), Medgiz, Moscow, 1951. 359 pages

LX - 4

2 20208-66

ACC NR: AF6010329

SOURCE CODE: BU/0011/65/018/009/0869/0870

AUTHOR: Natcheff, P.

ORG: Department of Entomology, Higher Institute of Agriculture

TITLE: Epitrimerus Boczeki, new eriophyid mite species of pepper in Bulgaria

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 869-870

TOPIC TAGS: entomology, animal parasite

ABSTRACT:

From the time eriophyid mite studies began five years ago, the research group collected more than 170 species in Bulgaria.

The present note describes a new species found on the leaves of Capsicum and named Epitrimerus Boczeki in honor of Dr. Jen Boczek of the Agricultural

University in Warsaw who helped in the identification of this mite species.

This paper was presented by Academician I. Buresch on 28 May 1965. Orig. art.

has: 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 1/1 MGS

Entomology

BULGARIA

NATCHEFF, P. D., Higher Agricultural Institute, Sofia

"Studies of Eriophyid Mites of Bulgaria V"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 19, No 12, 1966, pp 1175-1178

Abstract: [English article] The article describes in detail two new types of orchard tree mites found in Bulgaria: the *Rhyncaphytoptus popovi* n. sp. and *Aculus balevskii* n. sp. Samples are deposited at the Department of Entomology of the Higher Agricultural Institute in Sofia. No references. (Manuscript received, 1 Aug 66.)

L 32216-66 EWP(t)/ETI IJP(c) JD

ACC NR: AP6020813

SOURCE CODE: BU/0011/65/018/006/0537/0540

AUTHOR: Filipov, D.; Natchev, I.; Natchev, Chr.

ORG: Central Research Institute of Mechanical Construction Technology

TITLE: Cadmium diathizone dosing in zinc and zinc alloys ~7

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 6, 1965, 537-540

TOPIC TAGS: zinc alloy, cadmium compound, zinc

ABSTRACT: Following a brief discussion of existing methods of cadmium diathizone dosing, the authors proceed to describe the detailed investigation of one of the methods they consider the most convenient (H. Fischer et al., Metall und Erz., 35, 1938, 119). The stability of cadmium dithizonate in carbon tetrachloride was tested by washing it in a 0.5N soda solution. The processing of a Cd standard showed that if the dosing is carried as recommended by Fischer et al., the washing process extracts a part of the cadmium. The article gives detailed descriptions of the procedures involved. This paper was presented by Academician D. Ivanoff on 28 January 1965. Orig. art. has: 1 table. /Orig. art. in French/ /JPRS/

SUB CODE: 11, 07/ SUBM DATE: 28Jan65/ OTH REF: 007/ SOV REF: 001

15
Card 1/1

L 30183-66 EWP(t)/ETI IJP(c) JD

ACC NR: AP6020309

SOURCE CODE: BU/0011/65/018/007/0639/0642

AUTHOR: Natchev, Chr.; Filipov, D.; Natchev, J.

ORG: Research Institute of Mechanical Construction, Sofia

TITLE: Copper dithizone determination in steels and cast iron

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 7, 1965, 639-642

TOPIC TAGS: photometric analysis, steel, cast iron, copper compound

ABSTRACT: The authors describe a new photometric method for the determination of the copper dithizone content in steels and cast iron which is sufficiently precise and at the same time sufficiently fast and simple for practical application. The article contains detailed instructions for all phases of the necessary operations, for the establishment of the calibration curves, and for the carrying out of the actual analyses. In this way one can establish 0.001% of copper in 0.1 g samples and 50 ml of solutions with a +5% error. Although Au, Ag, Hg, and Pd disturb the determination, the method remains unaffected insofar as these elements are not found in steels and cast iron. This paper was presented by D. Ivanoff, Member BAN on 2 March, 1965. Orig. art. has: 2 tables. [Orig. art. in French.] [JPRS]

SUB CODE: 11, 20 / SUBM DATE: 02Mar65 / OTH REF: 002 / SOV REF: 001

Card 1/1 CC

I 42990-66 EWP(t)/ETI/EWP(k) L F(c) JE

ACC NR: AP6031800

SOURCE CODE: BU/0011/65/018/009/0813/0816

AUTHOR: Filipov, D.; Natchev, I.; Natchev, Chr.

ORG: Central Institute for Research of Machine Construction

TITLE: Portioning of lead dithizone in steels and casts

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 813-816

TOPIC TAGS: lead containing alloy, metal casting, chemical reduction, ascorbic acid, iron containing alloy, photometer/FEK-M photometer

ABSTRACT: Dithizone seems to be the most convenient for portioning small quantities of lead in steels and casts. The presence of Fe^{3+} , however, complicates the procedures and various authors worked on the elimination of the Fe^{3+} interfering effect. In view of the good reduction properties of the ascorbic acid, the authors investigated its possible use for the reduction of Fe^{3+} and created appropriate conditions which permitted the complete reduction of Fe^{3+} within a wide interval of pH values and temperatures of the medium. Extensive studies which are described in the article led to the establishment of a method for dosing the lead in steels and casts which can be used also for dosing lead in samples with a high content of copper, zinc, nickel, cadmium, etc.. The FEK-M photometer with a red filter was used to monitor the $\lambda = 620$ nm dithizone line which exists in quantities equivalent to the lead dithizonate prior to the extraction of lead. The procedure was satisfactorily tested by standard lead solutions. This paper was presented by Academician D. Ivanoff on 22 April 1965. Orig. art. has: 2 tables. [Orig. art. in French] [JPRS: 34,519]

SUB CODE: 11, 07, 13, 20 / SUBM DATE: 22Apr65 / SOV REF: 005 / OTH REF: 001

Card 1/1

L 32216-66 EWP(t)/ETI IJP(c) JD

ACC NR: AP6020813

SOURCE CODE: BU/0011/65/018/G06/0537/0540

AUTHOR: Filipov, D.; Natchev, I.; Natchev, Chr.

ORG: Central Research Institute of Mechanical Construction Technology

TITLE: Cadmium diathizone dosing in zinc and zinc alloys ²⁷

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 6, 1965, 537-540 _B

TOPIC TAGS: zinc alloy, cadmium compound, zinc

ABSTRACT: Following a brief discussion of existing methods of cadmium diathizone dosing, the authors proceed to describe the detailed investigation of one of the methods they consider the most convenient (H. Fischer et al., Metall und Erz., 35, 1938, 119). The stability of cadmium dithizonate in carbon tetrachloride was tested by washing it in a 0.5N soda solution. The processing of a Cd standard showed that if the dosing is carried as recommended by Fischer et al., the washing process extracts a part of the cadmium. The article gives detailed descriptions of the procedures involved. This paper was presented by Academician D. Ivanoff on 28 January 1965. Orig. art. has: 1 table. [Orig. art. in French] [JPRS]

SUB CODE: 11, 07/ SUBM DATE: 28Jan65/ OTH REF: 007/ SOV REF: 001

Card 1/1

L 42990-66 EWP(?) / ETI / EWP(k) JPRS 34

ACC NR: AP6031800

SOURCE CODE: BU/0011/65/018/009/0813/0816

AUTHOR: Filipov, D.; Natchev, I.; Natchev, Chr.

ORG: Central Institute for Research of Machine Construction

TITLE: Portioning of lead dithizone in steels and casts

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 813-816

TOPIC TAGS: lead containing alloy, metal casting, chemical reduction, ascorbic acid, iron containing alloy, photometer/FEK-M photometer

ABSTRACT: Dithizone seems to be the most convenient for portioning small quantities of lead in steels and casts. The presence of Fe^{3+} , however, complicates the procedures and various authors worked on the elimination of the Fe^{3+} interfering effect. In view of the good reduction properties of the ascorbic acid, the authors investigated its possible use for the reduction of Fe^{3+} and created appropriate conditions which permitted the complete reduction of Fe^{3+} within a wide interval of pH values and temperatures of the medium. Extensive studies which are described in the article led to the establishment of a method for dosing the lead in steels and casts which can be used also for dosing lead in samples with a high content of copper, zink, nickel, cadmium, etc.. The FEK-M photometer with a red filter was used to monitor the $\lambda = 620$ nm dithizone line which exists in quantities equivalent to the lead dithizonate prior to the extraction of lead. The procedure was satisfactorily tested by standard lead solutions. This paper was presented by Academician D. Ivanoff on 22 April 1965. Orig. art. has: 2 tables. [Orig. art. in French] [JPRS: 34,519]

SUB CODE: 11, 07, 13, 20 / SUBM DATE: 22Apr65 / SOV REF: 005 / OTH REF: 001

Card 1/1

L 30183-66 EWP(t)/ETI IJP(c) JD

ACC NR: AP6020309

SOURCE CODE: BU/0011/65/018/007/0639/0642

AUTHOR: Natchev, Chr.; Filipov, D.; Natchev, J.

33
B

ORG: Research Institute of Mechanical Construction, Sofia

TITLE: Copper dithizone determination in steels and cast iron

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 7, 1965, 639-642

TOPIC TAGS: photometric analysis, steel, cast iron, copper compound

ABSTRACT:

The authors describe a new photometric method for the determination of the copper dithizone content in steels and cast iron which is sufficiently precise and at the same time sufficiently fast and simple for practical application. The article contains detailed instructions for all phases of the necessary operations, for the establishment of the calibration curves, and for the carrying out of the actual analyses. In this way one can establish 0.001% of copper in 0.1 g samples and 50 ml of solutions with a +5% error. Although Au, Ag, Hg, and Pd disturb the determination, the method remains unaffected insofar as these elements are not found in steels and cast iron. This paper was presented by D. Ivanoff, Member BAN on 2 March, 1965. Orig. art. has: 2 tables. [Orig. art. in French.] [JPRS]

SUB CODE: 11, 20 / SUBM DATE: 02Mar65 / OTH REF: 002 / SOV REF: 001

Cord 1/1 CC

NATCHUK, A.I.

Quality of a surface layer subjected to ultrasonic saturation with boron. Trudy Sem.po kach.poverkh. no.5:108-114 '61.

(MIRA 15:10)

(Case hardening)

(Boron)

GUDRINIECE, E.(Riga); IEVIN'SH, A. (Riga); VANAG,G. [Vanags,G.] (Riga);
NATELIS, L. [Nakele,L.] (Riga); KREILE, L. (Riga)

Research in the field of cyclic arylazo- β - diketones. V. Metal
complexes of 2-phenylazoindendiones-1,3. Vestis Latv ak no.10:
107-113 '59. (EEAI 9:10)

1. Akademiya nauk Latviyskoy SSR, Institut organicheskogo sinteza.
(Aryl groups) (Ketones) (Metals)
(Cyclic compounds) (Phenylazoindzndione)
(Complex compounds)

~~NATENADEN~~, H.C.; NOBOSPASSKIY, V.V., redaktor; RAKOV, S.I., tekhnicheskiy
redaktor.

[Through southern and western Georgia] Po iuzhoi i zapadnoi gruzii.
Moskva, Izd-vo VTsSPS Profizdat, 1955.
(Georgia--Description and travel)

WIKER II

3

CZECH

Nádar, L. Solution of the temperature relations in a beam with discontinuous boundary conditions. Mat. Fyz. Časopis. Slovensk. Akad. Vied 4, 70-78 (1954). (Slovak. Russian summary)

The author determines the stationary temperature distribution in a circular cylinder of finite length when the lower half of the surface of the cylinder is kept at a constant temperature θ_1 , while the upper half of the surface is at temperature θ_2 . [The reviewer is unable to verify the correctness of the solution.]

A. Erdélyi.

JP LSH

NATER, I.

Remarks on the derivation of the Navier-Stokes equation; dedicated to
Academician Dionyz Ilkovic on the 50th anniversary of his birth. p. 74
(Matematicko-Fyzikalny Casopis, Vol. 7, No. 1, 1957, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAI) 10, Vol 6, No. 8, Aug 1957. Uncl.

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23145
Z/045/61/000/002/001/001
D231/D304

AUTHORS: Náter, Ivan; Horváthová, Soňa and Netschev, Drahomíra
(Bratislava)

TITLE: The influence of inelastic internal resistance on
the velocity of bending waves in elastic bars

PERIODICAL: Matematicko - fyzikálny časopis, no. 2, 1961, 131-145

TEXT: The mathematical investigation of wave velocity in elastic
bars has been undertaken at several levels. The simplest theory,
neglecting the internal resistance, has been given by G. Kol'skiy
(Ref. 1: Volny napryazheniya v tverdykh telakh (Stress Waves in
Solid Bodies) Moscow 1955 expressed in the differential equation

$$c_0^2 k^2 \frac{\partial^4 y}{\partial x^4} + \frac{\partial^2 y}{\partial t^2} = 0. \quad (1)$$

Kol'skiy is also quoted as having prepared graphs [Abstracter's
note: Not given in this paper] which are compared with the results
of the more exact theory given by Rayleigh (Ref. 2: Teoriya zvuka

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(Theory of Sound) Moscow-Leningrad 1940) and also by S. Timoshenko (Ref. 6: Pružnost a pevnost, Prague 1951) essentially in the form of equation

$$c_0^2 k^2 \frac{\partial^4 y}{\partial x^4} + \frac{\partial^2 y}{\partial t^2} - k^2 \frac{\partial^4 y}{\partial x^2 \partial t^2} = 0. \quad (4)$$

Taking the inelastic internal resistance into consideration the authors obtain equation

$$\left(1 + i \frac{\psi}{2\pi}\right) c_0^2 k^2 \frac{\partial^4 y}{\partial x^4} + \frac{\partial^2 y}{\partial t^2} = 0. \quad (14)$$

derived in accordance with Ref. 1 (Op. cit) and corresponding to Eq. (1) and if one proceeds according to Ref. 2 (Op. cit)

$$\left(1 + i \frac{\psi}{2\pi}\right) c_0^2 k^2 \frac{\partial^4 y}{\partial x^4} + \frac{\partial^2 y}{\partial t^2} - k^2 \frac{\partial^4 y}{\partial x^2 \partial t^2} = 0. \quad (19)$$

is obtained corresponding to Eq. (4); on solving the equation, the

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the authors obtain

$$\left[1 - \left(\frac{\psi}{2\pi} \right)^2 + 2i \frac{\psi}{2\pi} \right] c_0^2 k^2 \frac{\partial^4 y}{\partial x^4} + \left(1 + i \frac{\psi}{2\pi} \right) \frac{\partial^2 y}{\partial t^2} - \left(1 + i \frac{\psi}{2\pi} \right) k^2 \left(1 + \frac{E}{\mu G} \right) \frac{\partial^4 y}{\partial x^2 \partial t^2} + \frac{k^2}{c_0^2} \frac{E}{\mu G} \frac{\partial^4 y}{\partial t^4} = 0. \quad (22)$$

the dependence of the velocity on the wavelength being expressed in

$$c = \frac{2\pi c_0 k}{\lambda} \sqrt{\frac{1}{2} \left[1 + \sqrt{1 + \left(\frac{\psi}{2\pi} \right)^2} \right]}. \quad (17)$$

$$c = c_0 \left[1 + \left(\frac{\lambda}{2\pi k} \right)^2 \right]^{-\frac{1}{2}} \sqrt{\frac{1}{2} \left[1 + \sqrt{1 + \left(\frac{\psi}{2\pi} \right)^2} \right]}. \quad (21)$$

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and

$$c = \frac{c_0}{\sqrt{2}} \sqrt{1 + \frac{\mu G}{E} \left[1 + \left(\frac{\lambda}{2\pi k} \right)^2 \right] - \sqrt{\left\{ 1 + \frac{\mu G}{E} \left[1 + \left(\frac{\lambda}{2\pi k} \right)^2 \right] \right\}^2 - 4 \frac{\mu G}{E}}} \quad (25)$$

$$\sqrt{\frac{1 - \frac{5}{4} \left(\frac{\psi}{2\pi} \right)^2}{1 - \frac{3}{2} \left(\frac{\psi}{2\pi} \right)^2 + \frac{1}{16} \left(\frac{\psi}{2\pi} \right)^4}} \quad (25)$$

in accordance with Ye. S. Sorokin (Ref. 3: Metod ucheta neuprugogo soprotivleniya materiala pri raschete konstruktsiy na kolebaniya Sbornik TsNIPS, 1951), where

$$\sigma = \left(1 + i \frac{\nu}{2\pi} \right) E \epsilon, \quad (10) \quad \text{and} \quad \tau = \left(1 + i \frac{\nu}{2\pi} \right) G \gamma \quad (11)$$

In these expressions the inelastic internal resistance causes a slight increase in the wave velocity. According to Sorokin's new

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hypothesis (Ref. 12: K teorii vnutrennego treniya pri kolebaniyakh uprugikh sistem (On the Theory of Internal Friction During Oscillations of Elastic Systems) Moscow 1960), $\sigma = (u + iv) E \epsilon$ (10a) and $\gamma = (u + iv) G \gamma$ (11a)

where

$$u = \frac{1 - \left(\frac{\psi}{4\pi}\right)^2}{1 + \left(\frac{\psi}{4\pi}\right)^2}, \quad v = \frac{\frac{\psi}{2\pi}}{1 + \left(\frac{\psi}{4\pi}\right)^2} \quad (12)$$

If one expresses the inelastic internal resistance according to this new theory as

$$(u + iv) c_0^2 k^2 \frac{\partial^4 y}{\partial x^4} + \frac{\partial^2 y}{\partial t^2} = 0. \quad (28)$$

$$(u + iv) c_0^2 k^2 \frac{\partial^4 y}{\partial x^4} + \frac{\partial^2 y}{\partial t^2} - k^2 \frac{\partial^4 y}{\partial x^2 \partial t^2} = 0. \quad (32)$$

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and

$$\frac{\partial^4 y}{\partial x^4} + (u + iv) \left[\frac{\partial^2 y}{\partial t^2} - k^2 \left(1 + \frac{E}{\mu G} \right) \frac{\partial^4 y}{\partial x^2 \partial t^2} \right] + \frac{k^2 E}{c_0^2 \mu G} \frac{\partial^4 y}{\partial t^4} = 0. \quad (35)$$

the dependent wave velocity is given by expressions

$$c = \frac{2\pi c_0 k}{\lambda} \left[1 + \left(\frac{\psi}{4\pi} \right)^2 \right]^{-\frac{1}{2}} \quad (30)$$

$$c = c_0 \left[1 + \left(\frac{\lambda}{2\pi k} \right)^2 \right]^{-\frac{1}{2}} \cdot \left[1 + \left(\frac{\psi}{4\pi} \right)^2 \right]^{-\frac{1}{2}} \quad (34)$$

and

$$c = \frac{c_0}{\sqrt{2}} \sqrt{1 + \frac{\mu G}{E} \left[1 + \left(\frac{\lambda}{2\pi k} \right)^2 \right] - \sqrt{\left\{ 1 + \frac{\mu G}{E} \left[1 + \left(\frac{\lambda}{2\pi k} \right)^2 \right] \right\}^2 - 4 \frac{\mu G}{E}} \cdot \left[1 + \left(\frac{\psi}{4\pi} \right)^2 \right]^{-\frac{1}{2}} \quad (38)$$

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Here the inelastic internal resistance causes a decrease in the velocity. Taking a value of 0.2 for ψ , the correcting factor becomes according to Eq. (22) [Abstracter's note: Sorokin's old hypothesis] ≈ 1.00014 ; comparing that with the result obtained according to the new hypothesis where one obtains the correcting factor ≈ 0.999987 , it is clear that the decrease in velocity is only approximately 0.0013% of the speed; this value is practically negligible except in the case of materials with a high value of ψ (e.g. ferroconcrete). The author gives the following glossary of symbol values: ψ = coefficient of internal energy absorption; $c_0 = \sqrt{\frac{E}{s}}$; E = modulus of elasticity (in tension); s = specific mass of bar material; $k = \sqrt{\frac{I}{S}}$; I = moment of inertia; S = sectional area of the bar; t = time; ϵ = relative lengthening (under tension); γ = relative movement (under compression); x = right angle coordinate referring to the equilibrium position of the bar; y = deflection of single points from axis; G = modulus of elasticity (compression); c = wave velocity (bending waves); σ = normal stress;

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The influence of inelastic...

X

τ = tangential stress. There are 1 figure and 12 references:
7 Soviet-bloc and 5 non-Soviet-bloc. The references to the 4 most
recent English-language publications read as follows: S. Timoshenko
Phil. Mag. 41 (1921) p 744; D. Bancroft Phys. Rev. 59 (1941) p. 588;
G. E. Hudson Phys. Rev. 63 (1943) 46; R. M. Davies Phil. Trans. A.
240 (1948) p 375.

ASSOCIATION: Katedra fyziky Slovenskej vysokej školy technickej
v Bratislave (Department of Physics, Slovak Technical
University)

SUBMITTED: June 15, 1960

Card 8/8

USSR / Farm Animals. Cattle

Q-2

Abs Jour: Ref Zhur-Biol., No 3, 1958, 12086

Author : Natesova K. M.

Inst :

Title : The Effect of Different Conditions and Types of Feeding Upon the Growth and Development of Bull-Calves and Heifer-Calves (Vliyaniye razlichnykh usloviy i tipov kormleniya na rost i razvitiye bychkov i telochek)

Orig Pub: Sb. nauchn. rabot. Kurgansk. s.-kh. in-ta, 1956, vyp. 3, 226-246

Abstract: The calves were raised on different rations - abundant concentrate, abundant roughage, moderate concentrate, and moderate roughage, under identical conditions of maintenance. A higher increase in weight was obtained in cows raised on concentrate type of

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USSR/Farm Animals. Cattle

Q-2

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 35639

Author : ~~Natasev~~ K.M.

Inst : Not Given

Title : Comparative Study of the Growth and Development of Young Cattle under Different Conditions of Nutrition (Sravnitel'-noye izucheniye rosta i razvitiya molodnyaka pri razlichnykh razhimekh kormleniya)

Orig Pub : Zhivotnovodstvo, 1957, No 7, 28-32

Abstract : Four groups, each including 3 young bulls and 3 heifers, were fed concentrates from birth to 14 months of age, as follows: the 1st group, 52.5%; the 2nd, 32.2%; the 3rd group, 49%; and the 4th group, 29%; besides, each group was given 6-6.5% of milk, and the rest of the rations consisted of succulent, coarse, and green feeds. The relative weight gain in heifers, according to groups, was (in %): 156, 154.6, 146.3, 146.8; in young bulls it was: 156.4, 152.0, 156.7, 152.0. Changes, in the blood composition in relation to the feeding level were noticed.

Cord : 1/1

NATESOVA, K. M., Candidate Agric Sci (diss) -- "A comparative study of the growth and development of young bulls and calves of the East Frisian breed with various feeding systems under the conditions of Moscow Oblast". Moscow, 1959. 20 pp (Moscow Order of Lenin Agric Acad im K. A. Timiryazev), 110 copies (KL, No 23, 1959, 169)

L 35936-66 EWF(m)

ACC NR: AT6027396

SOURCE CODE: HU/2504/66/054/01-/0041/0059

AUTHOR: Nath, G.--Nat, G.

ORG: Department for Fluid Mechanics, Technical University, Budapest

TITLE: New method for designing a single-stage axial-flow fan for prescribed spanwise circulation

SOURCE: Academia scientiarum hungaricae. Acta technica, v. 54, no. 1-2, 1966, 41-59

TOPIC TAGS: fan, axial flow, fluid property, fluid mechanics

ABSTRACT: The solution of the inverse problem of the three-dimensional flow in axial fan, consisting of rotor only, having finite number of blades and hub/tip ratio between 0.2 and 0.4, was obtained by the method of isolated aerofoil of finite span. The circulation was taken as variable along the radius and the effects of trailing and bound vortices were taken into account. The trailing vortices were considered to be straight lines extending to infinity. The fluid was taken as incompressible, frictionless, and without heat-transfer. The velocity components of induced velocity, chord distribution, geometric angle of attack, efficiency, etc., were obtained. The author thanks Professor Doctor J. Gruber and other members of the Department of Fluid Mechanics, Technical University of Budapest, for the discussions and suggestions during the preparation of this paper. Orig. art. has: 5 figures, 30 formulas and 7 tables. [Orig. art. in Eng.] [JPRS: 36,835]

SUB CODE: 20, 13 / SUBM DATE: 04Aug64 / OTH REF: 015

Card 1/1

L 35934-66 EWP(m) WW

SOURCE CODE: HU/2504/66/054/01-/0175/0180

ACC NR: AT6027400

AUTHOR: Nath, G.--Nat. G.ORG: Technical University, Budapest

TITLE: Hypersonic flow in the stagnation region of a circular cylinder

SOURCE: Academia scientiarum hungaricae. Acta technica, v. 54, no. 1-2, 1966, 175-180

TOPIC TAGS: hypersonic flow, stagnation point, detached shock wave

ABSTRACT: An approximative solution for the inviscid hypersonic flow in the stagnation region of a circular cylinder with detached shock-wave was derived. Real-gas effects were taken into account. Various characteristics of the flow were obtained. When the ratio of the densities just behind the shock and the stagnation point, λ , equals one, the results in the stagnation region are reduced to those published in the literature. By using real-gas values of λ , the shock-detachment distance, pressure coefficient, and temperature increase, and stagnation point velocity gradient and Mach number decrease. The calculated values correlate well with experimental data pertaining to perfect-gas conditions. Orig. art. has: 16 formulas. [Orig. art. in Eng.] [JPRS: 36,835]

SUB CODE: 20 / SUBM DATE: 15Apr65 / OTH REF: 005

Card 1/1

L 35933-66 EWP(m)

ACC NR: AT6027401

SOURCE CODE: HU/2504/66/054/01-/0181/0197

AUTHOR: Nath, G.--Nat, G.

ORG: Technical University, Budapest

TITLE: Flow of a perfect fluid through a single axial flow fan with prescribed spanwise circulation /

SOURCE: Academia scientiarum hungaricae. Acta technica, v. 54, no. 1-2, 1966, 181-197

TOPIC TAGS: fan, axial flow, fluid flow, fluid property, fluid mechanics

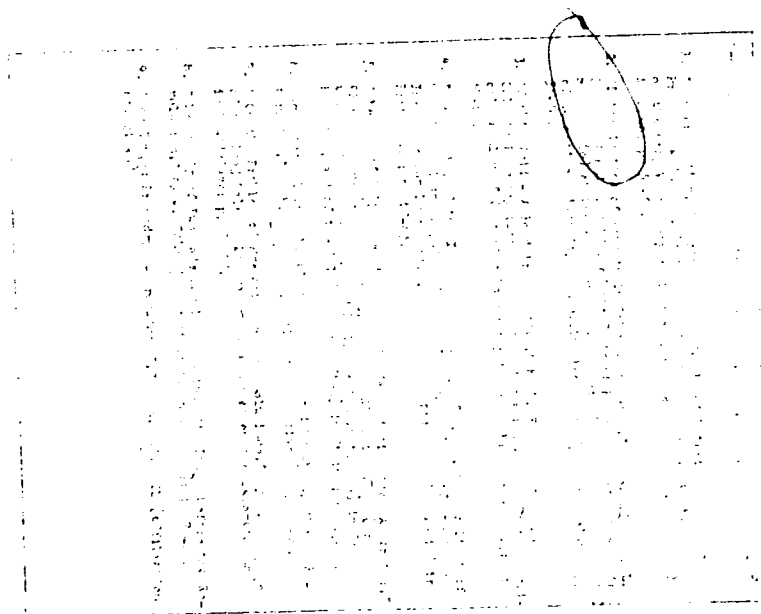
ABSTRACT:

A new method for solving the inverse problem of the three-dimensional flow in the rotor of a single-stage axial fan has been developed for a given variable circulation. The number of blades has been replaced by an infinite number of blades so that the total circulation is NT where N represents the number of blades and T represents the circulation. The trailing vortices are spirals and the axial velocity before the rotor, A , is not great. The method is valid for small R_H/R_T values, where $R_H/R_T > 0.2$ (R_H/R_T represents the hub-tip ratio.) The mean efficiency, chord length, and other design parameters were also determined. The fluid is taken as incompressible and frictionless. Orig. art. has: 7 figures, 19 formulas and 9 tables. [Orig. art. in Eng.] [JPRS: 36,835]

SUB CODE: 20 / SUBM DATE: 19Jul65 / OTH REF: 015

Card 1/1

NATHEROVA, L.



HAJKOVA, I.; BUCKOVA, H.; GESKOVA, E.; NATHEROVA L.

Study of tannins in some species of the genus Geranium. Cesk.
farm. 13 no.4:153-154 My'64

1. Katedra farmakognosie farmaceutickej fakulty UK [University
Komenskeho], Bratislava.

BLAZEJ, Anton; NATHEROVA, Lubica, prom. farm. (Odbojarov 12, Bratislava);
BUCKOVA, Anna

Analytical evaluation of tannin containing extracts of
crude drugs. Acta pharmac 8:63-80 '63.

1. Chair of Leather Chemical Technology, Faculty of Chemistry,
Slovak Higher School of Technology, Bratislava (for Blazej).
2. Chair of Pharmacognosy, Faculty of Pharmaceutics, Komensky
University, Bratislava (for Natherova and Buckova).

BUCKOVA, A.; LEIFERTOVA, I., dr., (Praha 2, Nabr. B. Engelse 44/5
NATHEROVA, L.

The content of tannins in *Geranium pratense* L. Part 2.
Cesk. farm. 14 no.8:406-409 Q '65.

1. Katedra botaniky prirodovedecke fakulty Karlovy University,
Praha a Katedra farmakognosie farmaceuticke fakulty University
Komenskeho, Bratislava. Submitted May 19, 1965.

NATI, R.

"Production of essences in our country."

TEKNIKA., Tirane, Albania., Vol. 6, No. 1, Jan./Feb. 1959

Monthly list of EAST EUROPEAN ACCESSIONS (EEAI), LC, Vol. 8, No. 7, July 1959, Unclass

MZAREULISHVILI, N.V.; DAVITASHVILI, Ye.G.; GIORGOBIANI, M.Ya.;
~~NATIDZE, V.P.~~

Complex systems with metal hydroxides. Soob. AN Gruz. SSR
39 no.1:67-74 J1 '65. (MIRA 18:10)

1. Institut' khimii imeni Melikishvili AN GruzSSR. Submitted
September 29, 1964.

11/11/1957
SUBJECT: USSR/Irrigation

99-7-3/14

AUTHOR: Arsenishvili, K.I., Candidate of Mechanical Sciences and
Natishvili, O.G., Candidate of Mechanical Sciences

TITLE: "Bottom-type Vortex Discharge Gate For Fast Flowing Canals"
(Vikhrevoy vodovypusk tipa donnogo kolodtsa dlya kanalov
s bol'shimi uklonami)

PERIODICAL: Gidrotekhnika i Melioratsiya", 1957, # 7, pp 16-19, (USSR)

ABSTRACT: The majority of canals in the mountainous regions have strong currents, which render measurements of water deliveries both difficult and inaccurate. Laboratory tests have shown that satisfactory results can be obtained with bottom-type gates, which give exact measuring data and are not influenced by turbulent water surfaces. Besides, the whirling effect at this type of head-gates prevents silting. These gates function satisfactorily at high rates of discharge as well as at turbulent water conditions. An additional advantage is its low cost of construction as compared with the other types of gates.

Card 1/2

TITLE:

99-7-3/14

"Bottom-type Vortex Discharge Gate For East Flowing Canals"
"Vikhrevoy vodovypusk tips donnogo kolodtsa dlya kanalov s
bol'shimi uklonami)

The article contains 1 figure and 1 table.

ASSOCIATION: Georgia Scientific Research Institute for Hydrotechnics and
Melioration (Gruzinskiy nauchno-issledovatel'niy Institut
gidrotekhniki i melioratsii)

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.

Card 2/2

NATISHVILI, O.G. (Tbilisi)

"Some problems of the turbulent motion of two-components flow"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

NATKANILC, Ireneusz; NIEWIADOMSKI, Tadeusz

4 scintillation meter for measurements of small beta activities. Nukleonika 8 no.7:495-500 '63.

1. Instytut Fizyki, Jadrowej, Krakow.

1ST AND 2ND DEPT'S		3RD AND 4TH DEPT'S	
PROCEDURES AND PROPERTIES			
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Oxygen in the Converter Process. A. Luthmer and J. Mathias. In: Iron and Steel Institute, Metallurgical Transactions, Series A, No. 1, pp. 71-79. In Polish. The advantages of using oxygen in the basic converter process are outlined in the light of study of the theory and of results of full scale tests. The blowing time can be shortened and the output increased, owing to the increase of tem-			
perature more scrap can be used. The content of nitrogen in the steel is lower. Oxygen makes possible the use of pig irons which normally are unsuitable for melting. The diagram and the approximate equations are given for the relation between the oxygen enrichment and the phosphorus content in the iron. The addition of 1% of oxygen to the blast increases the temperature of the bath by about 20 to 40°C.-- W.J.W.			
ASB-31A METALLURGICAL LITERATURE CLASSIFICATION			
1ST AND 2ND DEPT'S		3RD AND 4TH DEPT'S	

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Oxygen in the converter process. A. Lankiewicz and
J. Nalbandy. (Met. Ind., Glwice, Poland). *Proc.
Niderze (Glowice Inst. Met. & Metall. 2, 71 9/19/61)*
(English summary). The advantages of the use of O in
the basic converter process are discussed. 13 references.
Edward A. Ackermann

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND CODES

PROCESSES AND PROPERTIES INDEX

27

8

New Developments in the Production of Steel in Side-Blown Converters. J. Nakanishi. (*Practical Metallurgy*, 1951, 2, July-Aug., 215-220). (In Polish). The advantages of side-blown converters and the use of oxygen-enriched blast are discussed.

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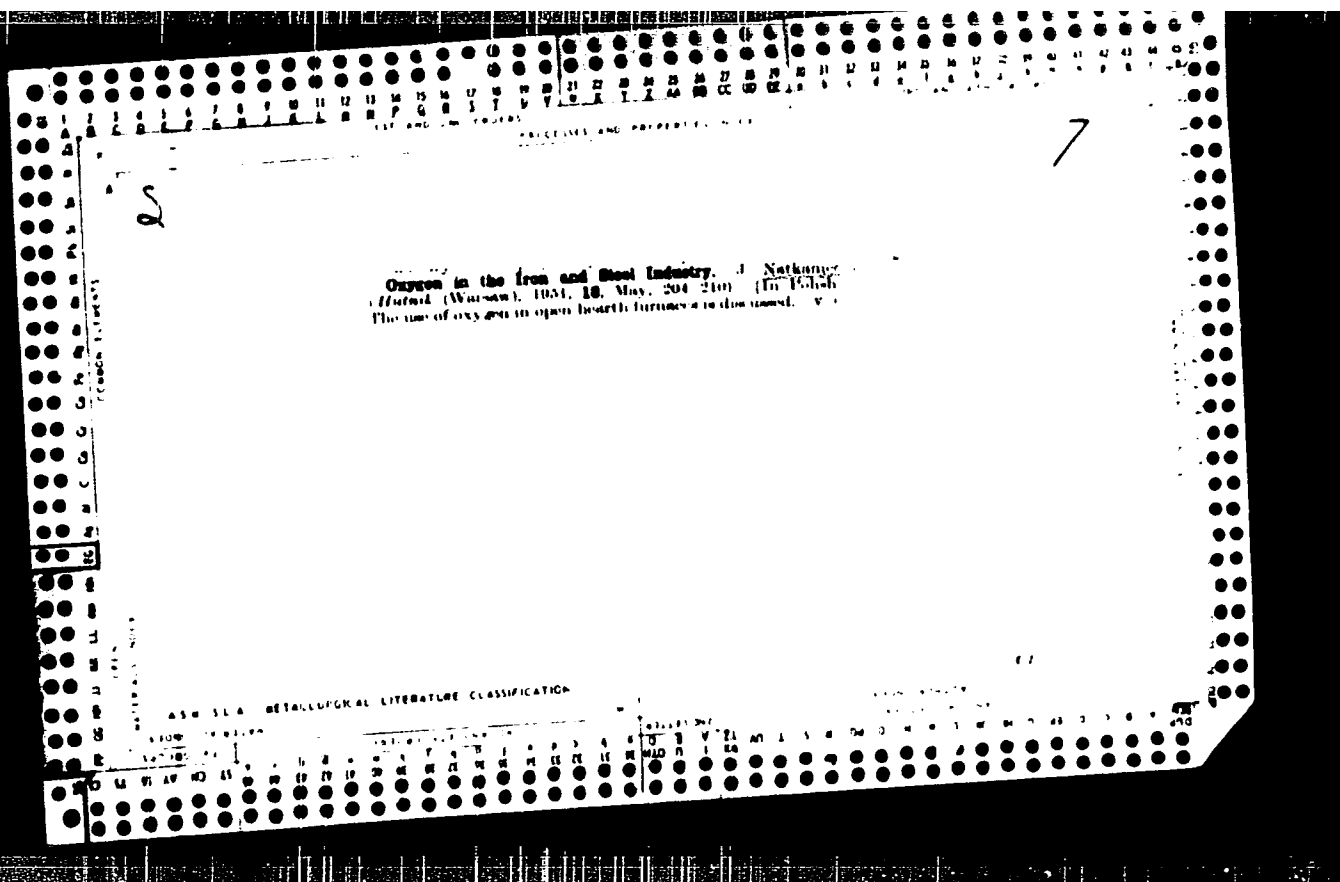
Refining open-hearth bath with oxygen. J. Nathaniec.
Prace (Lab. Ind. Mat. 3, No. 1, 47-54 (1951)). Expts. were
carried out in a 30-ton furnace with charges of 35-45% pig
iron and 55-65% scrap. Oxygen of 89.5% purity was de-
livered from tanks in which it was kept at 125 atm. pressure.

The pressure was reduced to 8-10 atm. at which it was de-
livered through a 1/2-in. steel pipe at a point 150-250 mm.
below the bath surface. The av. for the 57 melts was an
increase in the productivity of the furnace of 0.78 ton per hr.
or 15.4%. The time per ton of steel was reduced by 13.4%.
The consumption of ore per ton of steel produced was re-
duced by 58.7% and the consumption of fuel by 17.3%.
In these expts. 0.101 cu. m. of O was consumed per 1 point
of C per ton of steel which is somewhat below the theoreti-
cally calc'd. 0.112 cu. m. The av. velocity of C combustion
was 0.565% C per hr. The greatest attained velocity was
1.80% C per hr. In baths contg. much Mn the removal of
C was slow until the Mn content dropped to 0.20-0.30%.
Expts. were also carried out in the use of O for melting the
charge. Here the consumption was quite high, namely an
av. of 9.16 cu. m. per ton of steel while for refining 5.88
cu. m. per ton of steel was consumed. However, the pro-
duction time per ton of steel was reduced by 43.8% and the
output of the furnace increased by 77.8%. M. Honek

BA

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9

Use of oxygen in engines. J. Matheson (Metall., 1951, 12,
58-100; J. Iron Steel Inst., 1951, 202: 107).--American and Russian
work is reviewed.
R. B. CLARK.



NATKANIEC, J.

"Achievements in Austria in the Oxidation of Steel with Pure Oxygen." p. 66 (HUTNIK,
Vol. 20, No. 2, Feb. 1953) Warszawa

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No. 10,
October 1953. Unclassified.

NATKANIEC, J.

"Mechanization of the Casting of Steel." p. 235 (HUTNIK, Vol. 20, No. 7, July 1953)
Warszawa

SO: Monthly List of East European Acquisitions, Library of Congress, Vol. 2, No. 10
October 1953. Unclassified.

NATKANIEC, J.

"Research in Models Shwoing the Flow of Gases in Furnances Used in the Martin Process." p. 262 (Hutnik, Vol. 20, No. 8, Aug. 1953, Katowice)

SO: Monthly List of East European Accessions, Vol. 3, No. 6, Library of Congress, June, 1954, Uncl.

SECRET

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Nat Karlec, J.

✓ Improving the composition of pig iron from blast furnaces
in blast and converter. (In Polish). ~~Technical~~
(Kosice, 1955, No. 6), 144-146. (In Polish). ~~Technical~~
No of pig iron in ladle and mixer is described. Pre-refining in
active mixers and its influence on the output of O.H. furnaces
as well as the use of converters in co-operation with O.H.
steelmaking are discussed. —r. v.

02/15

Natkaniec, J.

Progress in the use of oxygen in founding processes. p. 171, Vol. 22,
no. 5, May 1955, HUTNIK
SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), Vol. 4, LC, no. 9,
Sept. 1955, Uncl.

NATKANIEC, J.

Distr: 4E2c

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Natkaniec, J. The Use of OXYGEN in Smelting Austenitic Chrome Ni-
steel Scrap by the Scrap Recovery Method.

„Zastosowanie tlenu do wytopiania austenitycznych stali chromo-
wa-niklowych metoda odzyskowa”. Hutańsk. No. 8, 1957 (Blat. Int.
1957), pp. 17-18.

A new method of smelting austenitic chrome nickel steel developed and tested at a Polish steel plant. It consists in melting chrome nickel steel scrap and oxidizing carbon by blowing gaseous oxygen through the melt. The highly exothermic reactions in which the impurities in the metal are oxidized raise the temperature of the melt even up to 1800°C. At this temperature, oxidation of carbon is much easier than oxidation of chromium, and consequently carbon is rapidly burnt out to a low content which would be impossible if iron ores were used in the lining process. The new technique reduced the time of lining by

18%, and the consumption of electrical energy by 14.8%. Although the life of hearth lining estimated by the number of lining processes was reduced by 25%, the cost per ton of ingots lined by oxidizing chrome nickel steel scrap was reduced by 1300 slots.

NATKANIEC, J.; PALZWICKI, K.

Oxygen converter process; the Linz, and Donawitz process. p. 28.

(HUTNIK, Vol. 24, No. 1, Jan. 1957, Katowice, Poland.)

SO. Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 10, October 1957, Uncl.

J. NATKANIEC

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Oxygen in Iron Metallurgy.

"Tlen w hutnictwie żelaza". Hutnik. No. 3, 1938, pp. 87-92.

This is a report from the symposium on the significance of oxygen in iron metallurgy sponsored by the Polish Academy of Sciences Committee of Metallurgy and the Metallurgical Industry Association of Engineers and Technicians. It includes extensive summaries of the lectures delivered during the symposium: 1) "The Combustion of Industrial Gases in Oxygen", E. Andrzejowski; 2) "Oxygen in Metallurgical Processes", J. Natkaniec; 3) "The Burning of the Flame in the Open-Hearth Process", R. Borko; and 4) "The Possibilities of Using Oxygen in the Development of Metallurgy", J. Antola. The discussion is also reported.

SW
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NATKANIEC, J.

Use of oxygen in open-hearth furnaces in the United States.
Hutnik P 29 no.4:138-146 Ap '62.

NATKANSKI, K.

077.019 077.001 838.011.3

Research on Knitted Fabrics of Diminished Stretch.

NT

"Działanie o zmniejszeniu wydatku". (Prace Inst. Włókien. No. 18, Warszawa, 1964, WPLA), 7 pp., 14 figs., 1 tab.

The research had as its object to determine the effect of weave on the physico-chemical properties, in particular stretching, of warp knit fabric, and the technical characteristics of knitted fabric of restricted stretch. Laboratory samples of knitted fabric, after treatment according to the dress-material finishing process, were put into use. The stretch of this knitted fabric was low and approached that of some varieties of dress fabric. The fabric was qualified as to strength, thickness, weight, etc., for underwear, blouses, frocks and similar items. The production of this type of knitted fabric on an industrial scale is economically justified. The production of knitted dress fabric makes it possible, owing to the high output-capacity in the proper knitting warp frames, to cut the prime cost by about 25 per cent.

NATKANSKI, K.

Knitting with less stretch. Biuletyn Wlok. p. 2.
PRZEMYSŁ WŁOKIENNICZY Vol. 8, No. 1/2, Jan./Feb. 1956.
Poland.

Source: East European Accessions List
Vol. 5, No. 10, Oct. 1956.

NATKANSKI, Karol

Activities of the Knitting Department of the Textile
Institute. Przegl wlokien 16 no.9:Suppl.: Biul inst
wlokien 14 no.5:1-3 S '62.

NATKAN'SKI, Karol' [Natkanski, Karol]

~~Machins~~-knit fishing nets. Tekst.prom. 23 no.4:60-63 Ap '63.
(MIRA 14:4)

1. Trikotazhnyy otdel tekstil'nogo instituta, Pol'skaya Narodnaya Respublika.
(Poland--Knit goods industry) (Fishing nets)

NATKEVICHAYTE-IVANAUSKENE, M. [Natkevicaite-Ivanauskiene, M.]

Characteristic features of flood land meadows in the Merkys Valley.
Bot.zhur. 47 no.1:118-121 Ja '62. (MIRA 15:2)

1. Vil'nyusskiy gosudarstvennyy universitet imeni V.Kapsukasa.
(Merkys Valley--Pastures and meadows)

BAGDONAITE, A.; GALINIS, V.; JANKEVICIENE, R.; LEKAVICIUS, A.;
~~NATKEVICAITĖ IVANAUSKIENE, M.~~; PIPINYS, J.; PURVINAS, E.;
RIBOKAITE, R.; SNARSKIS, P.; STANCEVICIUS, A.; SARKINIESE, I.;
ZIEMYTE, E., red.; ANAITIS, J., tekhn. red.

[Flora of the Lithuanian S.S.R.] Lietuvos TSR flora. Autoriu
kolektyvas: A. Bagdonaite ir kiti. Vilnius, Valstybine politi-
nes ir mokslines literaturos leidykla. Vol.2. 1963. 714 p.
(MIRA 16:9)

1. Lietuvos TSR Mokslu Akademija, Vilna. Botanikos institutas.
(Lithuania--Angiosperms)

28

CA

Analysis of paper ash containing titanium. L. S. Nat-
kina. *Russk. Prom.* 25, No. 4, 18-22(1950) -If the ash
contains BaSO_4 , the following method is used: Paper ash
(0.5 g.) is fused with 2.5 g. Na_2CO_3 and the fused mass
diss. with boiling H_2O and filtered, and the ppt. (A) is
washed with 5% Na_2CO_3 . The filtrate (and wash water)
is acidified with HCl and heated. If a ppt. seps., it is
filtered off and Si is detd. The SO_4^{--} content of the
filtrate is detd. as BaSO_4 . A is dissolved in 20-30 cc.
hot concd. H_2SO_4 + 10 g. $(\text{NH}_4)_2\text{SO}_4$, the mist. made up to
100 cc. and heated, and the ppt. of BaSO_4 filtered, washed
free of TiO_2 with 5% H_2SO_4 , and hot H_2O , dried, and weighed.
The content of TiO_2 in the filtrate is detd. by reduction of
 Ti^{4+} to Ti^{3+} with Zn and titration of the latter with FeCl_3
(KCNS indicator). If the ash contains SiO_2 , CaSO_4 , and
Mg- and Al-contg. compds., the following analysis is used:
The ash is treated as described above to give a filtrate (B)
and a residue (C) (obtained after repeated addn. of concd.
 HCl and evapn. to dryness to dehydrate the SiO_2) which is
fused in a Pt crucible and weighed, 5-10 cc. HF and 2-4 cc.
concd. H_2SO_4 are added, the mist. is evapd., and the crucible
+ contents are heated to const. wt. The loss in wt. by this
treatment gives the wt. of SiO_2 in the ash. The residue is

fused with KHSO_4 , the mist. treated with 15% H_2SO_4 , and
the mist. heated to give a soln. (D). B is evapd. and heated
1.5 hrs., treated with warm 1:4 HCl , filtered, and washed,
and the ppt. added to C, and the filtrate added to D. D is
treated with excess NH_4OH , heated, and filtered to give a
filtrate (E) and a residue, which is washed with 3% NH_4OH ,
and the washings are added to E. The residue is dissolved
in 1:4 HCl , reprecip. with NH_4OH , and filtered through the
same filter and washed, and the washings are added to E. The
residue is dried, heated to const. wt., and weighed to give the
sum of TiO_2 and Al_2O_3 . The residue of TiO_2 + Al_2O_3 is
fused with KHSO_4 , heated with 15% H_2SO_4 , the mist. diss.
to a given vol., and the Ti detd. on an aliquot; the Al_2O_3 is
calcd. by difference. E is acidified with 1:4 HCl , diss. to
200 cc., the soln. made alk. with NH_4OH and heated to
boiling, excess $(\text{NH}_4)_2\text{C}_2\text{O}_4$ added, and the soln. boiled 2
min., let stand on the water-bath 1 hr., cooled and filtered,
and the residue washed with boiling H_2O , dried, and heated
to const. wt. and the CaO weighed. Mg in the filtrate is
pptd. with $(\text{NH}_4)_2\text{P}_2\text{O}_7$ and weighed as $\text{Mg}_2\text{P}_2\text{O}_7$.
John Lake Keays

SOLECHNIK, N. Ya.; NATKINA, L.N.

The influence of wet pressing on the properties of impregnation papers.
Bumash. Prom. 28, No. 4, 11-15 '53. (MLBA 6:3)
(CA 47 no.14:7213 '53)

NATKINA, L.N.

SOLECHNIK, M.Ya.; NATKINA, L.N.; NOVOSEL'SKAYA, A.I.

Thermal treatment of hard wood-fiber boards. Bum.prom. 29 no.7:
15-16 JI '54. (MLRA 7:8)

1. Ordena Lenina Lesotekhnicheskaya akademiya im. S.M.Kirova.
(Paperboard)

NATKINA, L. N.

NATKINA, L. N. --"Investigation of the Operation of Thermal Processing of Wood-Fiber Materials." Mir Higher Education USSR. Leningrad Order of Lenin Forestry Engineering Academy imeni S. M. Kirov. Leningrad, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SC: Knizhnaya Letopis', No 1, 1956

NIKITIN, N.I.; LASKEYEV, P.Kh.; NATKINA, L.N.; NOVOSEL'SKAYA, A.I.

Nikolai Iakovlevich Solechnik; on his 60th birthday.

Nauch. trudy LTA no.98:3-10 '62. (MIRA 15:12)

(Solechnik, Nikolai Iakovlevich, 1901-)

SOLECHNIK, N.Ya.; NATKINA, L.N.; KOROMYSLOVA, T.S.; LIKHACHEVA, L.I.

Investigating chemical processes for obtaining lignin plastics
binders. Nauch. trudy LTA no.98:61-68 '62. (MIRA 15:12)

~~---~~ (Hardboard)
(Wood, Chemistry)

SOLECHNIK, N.Ya.; NATKINA, L.N.; KOROMYSLOVA, T.S.; LIKHACHEVA, L.I.

Obtaining compressed laminated wood without binders. Der. prom.
12 no.3:9-11 Mr '63. (MIRA 16:5)

1. Lesotekhnicheskaya akademiya im. S.M.Kirova.
(Wood, Compressed)

NATKOVICH, M.A. (Khar'kov)

Temperature restrictions in the "Energia" steam-water heaters.
Vod. i san. tekhn. no.12:31-32 D '59. (MIRA 13:3)
(Hot-water supply)

NATKOVICH S.I.

NATKOVICH, S.I.; RAYN, Ya.M.

Improving the organization and establishment of work norms in
factories of leather accessories. Leg.prom. 16 no.10:17-18 0 '56.

(MIRA 10:12)

(Leather industry)

MATKOVICH, S.I.; FAYN, Ya.M.

Cutting out simultaneously many layers of artificial leather on
HPE presses. Leg.prom.16 no.12:45-47 D '56. (MLRA 10:2)
(Leather, Artificial) (Shoe industry)

NATKOVICH, S.I., glavnyy inzh.; FAYN, Ya.M.

Leather substitutes used in the leather-haberdashery industry.
Leg.prom. 18 no.11:43-45 N '58. (MIRA 11:12)
(Leather substitutes)

L 15047-66 EWT(d)/EKP(1) IJP(a) BB/gg

ACC NR: AF6002149

SOURCE CODE: UR/0280/65/000/006/0059/0064

AUTHOR: Orlov, Yu. K. (Moscow): Natkovich, Yu. S. (Moscow) 5/6

ORG: none

TITLE: Recognition algorithm 16, 44

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 6, 1965, 59-64

TOPIC TAGS: pattern recognition, recognition process

ABSTRACT: Any point of an n -dimensional space R_n which is determined by a set of n real coordinates $a(a_1, a_2, \dots, a_i, \dots, a_n) \in R_n$ is called an "object." If for each class (or subset) A^j the distribution of objects in space is known $P(a \in A^j)$, then for each object $a \in R_n$ the classification can be performed on the basis of $\max [P(a \in A^j)]$. The article proves that, with certain limitations, the calculation of probability $P(a \in A^j)$ can be reduced to the computation of
$$V(a, A^j) = \sum_{i=1}^n \frac{(a_i - S_i^j)^2}{D_i^j},$$
 which is called the

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ACC NR: AP6002149

"degree of remoteness" of the object from the class A^i . The algorithm comprises three parts: a preliminary description of the class standard, a recognition proper, and a subsequent correction of the standard descriptions. A criterion of reliable recognition is introduced. Although the algorithm has been constructed for the normal law of distribution for each component of the object-describing vector with no correlation between components, it is, nevertheless, applicable to the cases with off-normal distributions and dependent components. Only 10 to 20 samples of each class are needed. The algorithm self-improves on the basis of its own recognitions, is so-to-say "statistically tracking," and adapts itself to the characteristics of the objects being recognized. "In conclusion, the authors wish to thank A. L. Lunts and V. S. Fayn for useful discussions, and also V. L. Braillovskiy for his valuable advice and comments." Orig. art. has: 2 figures and 21 formulas.

SUB CODE: 12, 13 / SUBM DATE: 11May65 / ORIG REF: 001

NATKOVICS, B., FERENCZY, L, ZSOLT, J.

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p. 10, UJITOK LAPJA, (Orszagos Talamanyi Hivatal) Budapest, Vol. 7,
No. 5, Mar. 1955

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Vol. 4, No. 12, December 1953

ATTN, H.

After the conference on railroad operations, p. 14.
Suggestions for fast threading at the machine-tractor station, p. 19.
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5a: Monthly List of East European Accessions, (SML), Lc, Vol. 1, no. 1, Oct. 1955,
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P. 4 (NITK LAC) Budapest, January Vol. 1, No. 13, No. 1, 1957.

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no. 3:377-384 Mr '58. (MIRA 11:7)

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Tbilisi. Predstavleno akademikom G.V.Khachapuridze [deceased].
(Georgia--Labor and laboring classes)
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red.; SONGULASHVILI, M.I., red.izd-va; DZHAPARIDZE,
N.A., tekhn. red.

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V.N.; POPOV, M.P.; SIGODZINSKIY, A.A.; SKOMOROSHKIN, A.F.;
CHASOVNIKOV, G.V.; DERBISHER, A.V., kand. ekon. nauk, red.;
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processes at the First State Bearing Plant] Kompleksnaya avtoma-
tizatsiya i modernizatsiya oborudovaniya i protsessov proizvodstva
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YERMILOV, A.A., inzhener; MATOCHIN, V.M., inzhener.

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Preparation of glass tubing. Energetik 5 no.1:26-27 Ja '57.

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